

REMARKS

Claims 17-33 and 35-54 are pending in this application. Claims 17, 30, and 43 have been changed by this amendment. These amendments have been made to improve the form of the claims and not made for reasons of patentability.

The Examiner rejected claims 17 and 30 under 35 U.S.C. 102(e) as being anticipated by Rohen. Applicant respectfully traverses. Rohen discloses a mouse having a small tactile feedback area 33 (Figs. 2-4) that produces a mild AC signal to provide a tingling sensation at the finger of the user, or vibrates a voice coil 47 to provide a vibration to the user that is contacting the voice coil. This small tactile area 33 is not the housing of the mouse-- the housing is the shell and outer surface of the mouse that is grasped or contacted by the user's fingers and palm. Rohen only provides a sensation by producing current and voltage between terminals of the area 33 (Fig. 3), or by vibrating voice coil 47 (Fig. 4) in the area 33, not by providing a sensation through the housing. The user will not feel sensations using Rosen's mouse by contacting the housing, which includes the areas of the mouse surrounding the area 33. In contrast, in claim 17 Applicant recites a movement generator generating motion of the housing, thereby delivering a tactile sensation to said user's palm through the housing when said palm is in contact with the housing. As explained previously, Applicant's specification states on page 6, lines 21-23, that for Applicant's device "[users] do not necessarily have to touch the computer mouse with any specific position of the hand as the whole computer mouse according to the invention is moving." This clearly cannot occur with Rohen's mouse. Claim 17 is therefore believed patentable over Rohen.

Claims 18-29 are dependent from claim 17 and are believed patentable for at least the same reasons and for additional reasons; for example, claim 21 recites a resilient material enabling the housing motion by storing and releasing energy. Claim 22 recites that motion is in the casing portion with respect to the lower portion; Rohen mentions nothing about a casing portion of the housing moving with respect to a lower portion of the mouse housing. Claim 29 recites that a location underneath the palm of the user is impacted with a moving portion of the movement generator, which is not disclosed or suggested by Rohen. Claim 54 recites that the movement of the casing portion includes a slanting of the casing portion in one direction with respect to the lower portion; Rohen discloses no such slanting of a housing portion.

Claims 30-42 recite a computer mouse including a movement generator generating motion of the housing and delivering a bump sensation to the user's palm through the housing, and is believed patentable over Rohen at least for similar reasons as claim 17 and for additional

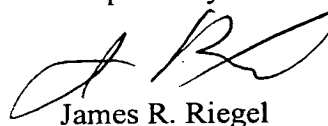
reasons. Claims 43-53 recite a method for providing tactile feedback to a user of a mouse device in which movement of a casing portion of the mouse device, including a top surface of the mouse device, is moved with respect to a bottom portion of the device, which is not disclosed or suggested by Rohen. Rohen only discloses moving a small area 33 on the side of the mouse housing, not a casing portion including a top surface of the housing with respect to a bottom portion of the mouse as recited by Applicant. Claims 44-53 are dependent on claim 43 and believed patentable over Rohen at least for similar reasons and for additional reasons. For example, claims 50-51 recite that the movement generator generates movement of the casing portion by impacting the casing portion with a moving portion of the movement generator; no such impacting of the housing is disclosed in Rohen. Claim 52 recites that the movement of the casing portion includes a slanting of the casing portion in one direction with respect to the bottom portion, which is not disclosed or suggested by Rohen.

In view of the foregoing, Applicant believes claims 17-23, 25-37, and 39-54 are patentable over Rohen, and respectfully requests that the rejection be withdrawn.

The Examiner rejected claims 24 and 38 under 35 U.S.C. 103(a) as being unpatentable over Rohen in view of Affinito et al. Affinito et al. also do not disclose the features of moving the mouse housing as explained above, so that claims 24 and 38 are believed patentable at least for reasons similar to their respective parent claims. Applicant respectfully requests that the rejection under 103(a) be withdrawn.

Applicant respectfully requests a Notice of Allowance from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,



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MARKED-UP VERSION OF AMENDMENTS

In the Claims:

17. (amended) A computer mouse device for tracking user input and providing tactile feedback, said mouse device comprising:

a housing designed to move over a separate flat surface, said housing designed to be engaged by a palm of a user's hand when said housing moves on or rests on said flat surface;

a tracking element provided within said housing that tracks the motion of said housing in x- and y-directions with respect to said flat surface, wherein motion data from said tracking element is transmitted to a host computer for updating the status of a cursor on a graphical display displaying one or more graphical details;

a signal channel allowing communication between said mouse device and said host computer, wherein said mouse device receives via said signal channel a sensory feedback signal from said host computer when said cursor displayed on said host computer interacts with one of said graphical details in response to said motion data; and

a movement generator included within and coupled to said housing, said movement generator generating motion of said housing, thereby delivering a tactile sensation to said user's palm through said housing when said palm is in contact with said housing, said movement generator delivering said tactile sensation in response to said sensory feedback signal received over said signal channel.

30. (amended) A computer mouse device for tracking user input and providing tactile feedback, said mouse device comprising:

a housing including a lower portion and an upper portion, said lower portion designed to move over a separate flat surface, said upper portion designed to be engaged by the palm of a user when said lower portion is in contact with said flat surface;

a tracking element provided within said housing for tracking motion of said housing with respect to said flat surface, wherein motion data from said tracking element is transmitted to a host computer for updating the status of a cursor on a graphical display containing one or more graphical details;

a signal channel allowing communication between said mouse device and said host computer, wherein said mouse device receives via said signal channel a sensory feedback signal from said host computer when said cursor displayed on said host computer interacts with one of said graphical details in response to said motion data; and

a movement generator included within and coupled to said housing for generating motion of said housing with respect to said flat surface, thereby delivering a bump sensation to said user's palm through said housing when said palm is in contact with said housing, said movement generator delivering said bump sensation in response to said sensory feedback signal received over said signal channel.

43. (amended) A method for providing tactile feedback to a user of a mouse device in communication with a host computer, the method comprising:

providing motion signals to said host computer from said mouse device, wherein said motion signals represent motion of said mouse device on a flat surface;

receiving on said mouse device a sensory feedback signal from said host computer over a signal channel, said sensory feedback signal being sent by said host computer when a cursor displayed on said host computer interacts with a graphical detail in response to said motion signals; and

generating a movement of a casing portion of said mouse device with respect to a bottom portion of said mouse device in response to said received sensory feedback signal, said casing portion including a top surface of a housing of said mouse device, said movement delivering a tactile sensation to said user's palm through said top surface of said housing when said palm is in contact with said casing portion.